tions now, any more than in the designing of an ocean liner) that this new ship, which Colonel Hensley hopes to sail to America, can circumnavigate the earth at the equator, with but four stops; that is, in four stages of six thousand miles each. It is designed to carry thirty passengers, and a crew of twenty-five; with petrol, oil, and stores, providing sleeping quarters, library, restaurant, smoking room, etc. No smoking is allowed at present on these Zeppelins as the precautions necessary for this indulgence have not yet been carried into effect. The new ship will have all of the conveniences and comforts of modern travel, including a promenade deck (inclosed). Colonel Hensley, who has been investigating the Zeppelin construction and opera-

tion in its various particulars since the signing of the armistice, said to me that the ship he hoped to secure could fly from Berlin to Chicago without landing, a distance of 5,530 miles roughly, and at the average rate of speed of over 150 kilometers, or in excess of ninety miles an hour; that the distance to Chicago could be covered in 58 hours, or about two days and a half; and that, with proper landing facilities and halls, it could continue around the world, back to its original starting place in ten days. (I had another mental flash of Ballin, as I absorbed this statement.) And the Colonel seemed to know what he was talking about. He continued:

"I am loading up on all the Zeppelin dope I can get, and this new ship is far the greatest thing yet constructed. The flight across the Atlantic by the English-made Zeppelin is not a circumstance to the certainties of what may be done with this airship; indeed, excepting for its theatrical aspect, the flight of the English ship cannot fairly be compared to flights made by certain Zeppelins during the war; notably, one of which covered over six thousand kilometers in a flight to the German South African Colonies -an unfinished trip, as the ship was recalled by wireless before she had reached her destination. The structure I am negotiating for is not subject to indemnification claims against Germany, and, should we eventually secure it, it will be purely on a purchase basis." I learned that the company has been at work, since the signing

of the armistice and the negotiation of the Peace Treaty, manufacturing Zeppelin parts; but on account of the provisions of the Treaty, these ships have not been finished or put together. There is a great war Zeppelin, one built for the purpose of bombing Paris or London, in the big hall at Friedrichshafen. It has a capacity of 72,000 cubic meters. The French are claiming it, or endeavoring to establish a claim for it, and the Zeppelin people seemed indifferent as to its hnal disposition.

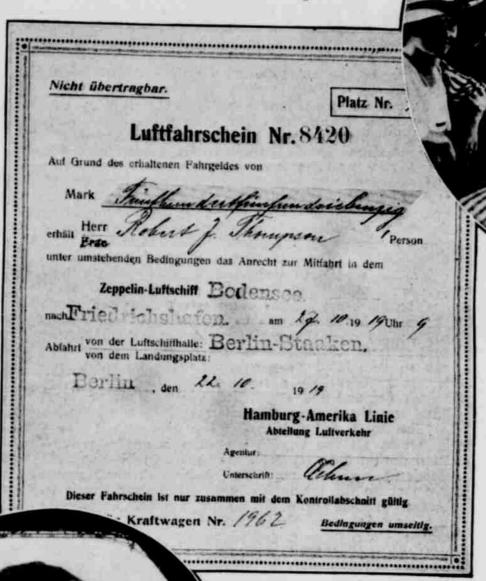
"You see," said Baron von Gemmingen, "my uncle never intended the Zeppelins for war purposes. They were conscripted, as were all the resources of the country, in our struggle for defense. The destruction of these great and peaceful inventions-in fact their use in the war, as an offensive weapon-was a contributing cause, in large degree, to the death of my uncle, Count Zeppelin. We had made hundreds of regular pas-

senger flights before the war, and carried thousands of people. As a passenger conveyance, of the highest and most excellent performance, the Zeppelin had made its demonstration the year before the war broke out and this terrible conflict quite changed our plans of construction, diverting us from many determined improvements, such as heating the passenger quarters (a very important item), doing away with the noise of the motors, complete safety, and so on. All of these problems are now solved. We have carried over 8,000 passengers up to date; look at the number of your ticket! Yes, you are number 8,420! You saw, at the Berlin office, what the demand for reservations on the "Bodensee" was. These reservations have to be booked weeks in advance. The popularity of this method of travel is indicated by this demand, and its safety is shown by the constant lowering of the insurance rate, which has fallen in three months from six dollars per thousand to two dollars."

"No, no," the Baron responded to my inquiry, "we are not concerned with English rivalry. There is room for all in the air, and we wish them well; but the thing is not simple. Their conspicuous achievement in crossing the Atlantic with a reconstructed model of our old type Zeppelins only proves what can be done by experienced operators with perfected structures.

"Our experience in changing the construction of our ships has been dearly paid for, and each slightest alteration to of the utmost consequence. Enlargement,

diminution, strengthening here, or lightening there, are all governed by the application of laws quite other than multiplication or subtraction, and laws which can only be determined by repeated tests and the observation of interrelated facts. During the progress of the war we were able to commence and complete, in each one of our four different works, a fully equipped Zeppelin airship in four weeks' time, that is, four a month. They cost, or rather were sold for, at that time, approximately, 500,000 marks (\$125,000) each; but, at present, this figure is greatly increased-not substantially so, however, when we figure the



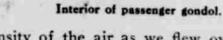
Mr. Thompson's Zeppelin airship ticket. The amount of five hundred and seventy-five marks was equal in value at the time to \$20.

pre-war value of

money. What we did during the war in the way of turning out these ships, would now require six months time; but, once conditions are again favorable to our industrial life, we can finish a modern perfected Zeppelin in half that time; that is, we can construct and put together an airship that can travel around the world in four or five landings and make the journey in two hundred and twenty-four hours-ten

days." "How about strong gales and storms?" I asked him. He replied: "We can navigate the air in any weather, that will permit of our getting out of our hangars or halls, and can make fairly high speed against practically any wind, excepting hurricanes or cyclones, and those we can avoid. In moving out or into our halls, it is the side winds that trouble us. This will be solved, however, by constructing hangars which may be turned, like a locomotive turn-table, according to the direction of the wind. None of these has yet been built, but their construction only awaits the freedom of action incident to settled conditions which should come with peace.'

AM asked most frequently regarding the sensation of such an experience as an air-plane or Zeppelin flight. For my part, this is difficult to describe. It is certain that the feeling of anxiety and nervousness is entirely missing-indeed, there was an utter absence of apprehension or fear on the part of my fellowpassengers. Two travelers, however, were so sea-sick during the voyage that they lost interest altogether in the thrilling moving picture reeling off beneath us. I did not sense any such disturbance, personally, at all, though I am not what is called a "good sailor." The rocking and pitching of the "Bodensee" was due to its flying at a very low altitude (about 450 feet above the ground) and the consequent variations in the



density of the air as we flew over a forest and then a sandy field. The effect on the air of different kinds of vegetation, and the nature of the soil of the earth, is marked and noticeable in flights at such low heights; but higher up the air density is so uniform that movement is imperceptible. At three thousand feet, if you could not see the mountains and forests running away from you, the sensation of motion would would be altogether absent. You would have

the illusion of standing still.

On the "Bodensee," you stand up and move about, you look out of the windows and talk. If you talk too long, your sub-conscious mind suddenly brings you back to the window and you become dumb once more with the wonder of the whole thing. Meantime the motors of the ship are driving her like a wild duck, arrowlike, straight on in its course, over exactly the same track she had traveled before.

We veered, once, several miles out of our course while passing over the mountains of the Thuringen forest, to run around and avoid a snow storm. As the sun became over-clouded the air turned icy cold, and blankets were brought into requisition. Tea was served, and in half an hour we were again in the sunshine and the storm was behind us.

Von Gemmingen told me the ship always passes over precisely the same route. "Our course is like a tunnel, cut through the air," he said. "It is laid upon our navigation chart, according to certain landmarks, such as conspicuous buildings, hills, mountains, and so on. It is not varied, excepting for storms."

Germany is a great winter-cabbage country, and this vegetable becomes blue as it ripens. In looking at these fields, they appeared like beds of mignonette. Tame pigeons were flying about below us, and as we passed over villages, pigs and ducks, chickens and sheep could be seen and identified. A wild deer broke out of a forest and dashed for a moment into view. A farmer, at the plow, would stop and wave his hat to us-doubtless thinking, where the hat had formerly rested, something about "ueber alles" as we roared past. And speaking of this roar; it is deafening, to be sure, if you are below or behind the motors; but racing away from the noise at the rate of seventy miles an hour, as we were doing, only a dull dreamy sub-tone comes to you and the voice does not have to be raised in the least for agreeable conversation.

As we approached the Swiss frontier, the far-away Alps could be seen, with their white snow-capped peaks reaching into the clouds. As we came up to the Zeppelin hall at Friedrichshafen on Lake Constance (Bodensee), the engines stopped. There was dead quiet. I was told that the action was to test the buoyancy and determine the loss of gas. It was only for a moment and the motors were again started, with the ship steering for the ground at an easy angle. In five minutes, as I timed the thing, we were down and safely anchored in the hall. It was four o'clock. We had made the flight in five and a half hours.

The trip had given me a taste and fairly fixed comprehension of the method of fast travel of tomorrow; a reflection too, I am pretty sure, of an unexpressed dream of that remarkable Jew and supership-builder, Albert Ballin, whose great brain and heart gave way under the loss of the Leviathan, the Imperator, the George Washington, etc., into the insatiable maw of Mars.



deron von Gemmingen, of the airship company.

Loading baggage UP into hold of the Zeppelin.

"Bodensee" leaving berth

for cruise to Sw tzerland

The 1153 horsepower motors of the "Bodensee."

A motor photographed from window of airship.